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EXAMINER

MANOSKEY, JOSEPH D

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,818

Applicant(s)

WILLIAMS ET AL.

Examiner

Joseph Manoskey

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6-19, and 21-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Ben-Meir et al., U.S. Patent 5,652,893, hereinafter referred to as “Ben-Meir”.

3. Referring to claim 1, Ben-Meir teaches an apparatus that has a first power supply and a second power supply that each providing power for the system, this is interpreted as a first power supply, adapted to provide a first portion of power, and a second power supply adapted to provide a second portion of power (See Fig. 1 and Col. 3, lines 15-38). Also, Ben-Meir teaches the power supplies attached to a backplane to supply the power to the various modules, this interpreted as a power distribution network, wherein the power distribution network is adapted to direct the first portion of power and the second portion of power to a first split path adapted to transmit signals in a system (See Fig. 1 and Col. 3, lines 29-38).

4. Referring to claim 6, Ben-Meir discloses the use of an environment monitor, this interpreted as an environmental system monitoring demon adapted to detect malfunctions in the first and second power supplies (See Fig. 1 and Col. 3, lines 21-28).

5. Referring to claim 7, Ben-Meir teaches the monitor detecting failures for the intelligent power management system, this is interpreted as the ESMD is adapted to send a notification to a system control unit in response to detecting a malfunction in at least one of the first and second power supplies (See Fig. 1 and Col. 3, lines 21-28).

6. Referring to claim 8, Ben-Meir discloses the power management determining power allocation and dealing with power failures, this is interpreted as the ESMD is adapted to instruct the system control unit to attempt to reconfigure the at least one malfunctioning power supply (See Col. 4, lines 39-43).

7. Referring to claim 9, Ben-Meir teaches the use of redundant lines and having a third and fourth power supply, this is interpreted as further comprising a third and fourth power supply adapted to provide redundant power to a second split path through the distribution network (See Fig. 1 and Col. 2, lines 1-8).

8. Referring to claim 10, Ben-Meir discloses the use of a first and second power supply that are connected to backplane. Ben-Meir also teaches the lines being redundant (See Fig. 1, Col. 2, lines 1-8, and Col. 3, lines 15-38). This is interpreted as

a first redundant source of power adapted to provide power to a first split path, and a second redundant source of power adapted to provide power to a second split path, wherein the first and second split paths are adapted to transmit signals.

9. Referring to claim 11, Ben-Meir teaches the lines being redundant, this interpreted as the first and second split paths are adapted to allow signals to be transmitted in parallel (See Col. 2, lines 1-8).

10. Referring to claims 12 and 13, Ben-Meir teaches the use of redundant power supplies and redundant lines, this is interpreted as a first redundant source of power comprises a first and second power supply adapted to provide a first and second portion of power to the first split path and a second redundant source of power comprises a third and fourth power supply adapted to provide a third and a fourth portion of power to the second split path (See Fig. 1, Col. 2, lines 1-8, and Col. 3, lines 15-38).

11. Referring to claim 14, Ben-Meir discloses the use of an environment monitor, this interpreted as an environmental system monitoring demon adapted to detect malfunctions in the first, second, third and fourth power supplies (See Fig. 1 and Col. 3, lines 21-28).

12. Referring to claim 15 and 16, Ben-Meir teaches power management determining power allocation and dealing with power failures (See Col. 4, lines 39-43) and Ben-Meir

teaches the use of redundant lines and having a third and fourth power supply (See Fig. 1 and Col. 2, lines 1-8). This is interpreted as the ESMD being adapted to instruct the system control unit to transmit messages along the second split path if the first split path becomes substantially unable to transmit messages because the first and second power supplies become substantially unable to provide power to the first split path and adapted to instruct the system control unit to transmit messages along the first split path if the second split path becomes substantially unable to transmit messages because the third and fourth power supplies become substantially unable to provide power to the second split path.

13. Referring to claim 17, Ben-Meir teaches a method that has a first power supply and a second power supply that each providing power for the system (See Fig. 1 and Col. 3, lines 15-38). Also, Ben-Meir teaches the power supplies attached to a backplane to supply the power to the various modules, this interpreted as providing a redundant source of power to a first split path, wherein the first split path is adapted to transmit signals in a system (See Fig. 1 and Col. 3, lines 29-38). Ben-Meir also teaches managing the power system with a power management system, this interpreted as managing the redundant source of power (See Col. 3, lines 29-38).

14. Referring to claim 18, Ben-Meir discloses the redundant power source having two power supplies, this is interpreted as providing a redundant source of power

comprises providing a first and a second portion of power from a first and a second power supply coupled to the first split path (See Fig. 1 and Col. 3, lines 15-38).

15. Referring to claim 19, Ben-Meir teaches having a power management system, this interpreted as the first and second power supplies to the first split path comprises coupling the first and the second power supplies to a current sharing power distribution network that is coupled to the first split path (See Ben-Meir, Col. 3, lines 29-38).

16. Referring to claim 21, Ben-Meir discloses the use of an environment monitor, this interpreted as wherein managing the first and second power supplies comprises determining if at least one of the first and second power supplies is malfunctioning (See Fig. 1 and Col. 3, lines 21-28).

17. Referring to claim 22, Ben-Meir teaches the use of an environment monitor, this is interpreted as determining if the first and second power supplies are malfunctioning comprises collecting environmental data from the first and second power supplies and processing the data with a software package (See Fig. 1 and Col. 3, lines 21-28).

18. Referring to claim 23, Ben-Meir discloses the power management determining power allocation and dealing with power failures, this is interpreted as managing the first and second power supplies further comprises taking an action if at least one of the first and second power supplies is malfunctioning (See Col. 4, lines 39-43).

19. Referring to claim 24, Ben-Meir teaches the monitor detecting failures for the intelligent power management system, this is interpreted as taking action further comprises sending a notification to a system control unit (See Fig. 1 and Col. 3, lines 21-28).

20. Referring to claim 25, Ben-Meir discloses the power management determining power allocation and dealing with power failures, this is interpreted as taking an action further comprises instructing the system control unit to attempt to reconfigure the at least one malfunctioning power supply (See Col. 4, lines 39-43).

21. Referring to claim 26, Ben-Meir teaches dealing with power supply element failures, this is interpreted as reconfiguring the at least one malfunctioning power supply comprises turning off the power supply for a selected duration (See Col. 4, lines 1-12).

22. Referring to claim 27, Ben-Meir discloses the use of redundant lines and having a third and fourth power supply, this is interpreted as further comprising a second redundant source of power to a second split path (See Fig. 1 and Col. 2, lines 1-8).

23. Referring to claim 28, Ben-Meir discloses the use of a first and second power supply that are connected to backplane. Ben-Meir also teaches the lines being redundant (See Fig. 1, Col. 2, lines 1-8, and Col. 3, lines 15-38). This is interpreted as

a method providing a first redundant source of power to a first split path, and providing a second redundant source of power to a second split path, wherein the first and the second split paths are adapted to transmit signals. Ben-Meir also teaches managing the power system with a power management system, this interpreted as managing the first and second redundant sources of power (See Col. 3, lines 29-38).

24. Referring to claim 29, Ben-Meir teaches the lines being redundant, this interpreted as the first and second split paths are adapted to allow signals to be transmitted in parallel (See Col. 2, lines 1-8).

25. Referring to claims 30 and 31, Ben-Meir teaches the use of redundant power supplies and redundant lines, this is interpreted as a first redundant source of power comprises a first and second power supply adapted to provide a first and second portion of power to the first split path and a second redundant source of power comprises a third and fourth power supply adapted to provide a third and a fourth portion of power to the second split path (See Fig. 1, Col. 2, lines 1-8, and Col. 3, lines 15-38).

26. Referring to claim 32, Ben-Meir discloses the use of an environment monitor, this interpreted as managing the first and second redundant power supplies comprises determining if the first, second, third, and fourth power supplies are malfunctioning (See Fig. 1 and Col. 3, lines 21-28).

27. Referring to claim 33 and 34, Ben-Meir teaches power management determining power allocation and dealing with power failures (See Col. 4, lines 39-43) and Ben-Meir teaches the use of redundant lines and having a third and fourth power supply (See Fig. 1 and Col. 2, lines 1-8). This is interpreted as instructing the system to transmit messages along the second split path if the first split path becomes substantially unable to transmit messages because the first and second power supplies become substantially unable to provide power to the first split path and adapted to instruct the system control unit to transmit messages along the first split path if the second split path becomes substantially unable to transmit messages because the third and fourth power supplies become substantially unable to provide power to the second split path.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 2-5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Meir in view of Weinstein, U.S. Patent 5,939,799, hereinafter referred as "Weinstein".

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30. Referring to claims 2 and 3, Ben-Meir discloses all the limitations (See rejection of claim 1) except for the power distribution network comprising a first and second capacitor network comprising at least one capacitor coupled to the first split path and adapted to store the portion of power provided by the first or second power supply for a selected duration, however Ben-Meir does teach having redundant power sources and a desire to prevent any amount of downtime from the failure of a power supply (See Col. 3, lines 15-28). Weinstein teaches the use of capacitors and a switch connected to the power supplies that supply power to a load during a switch from a first to a second power supply (See Col. 1, lines 60-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the switch and capacitors of Weinstein with the redundant power supplies of Ben-Meir. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because it prevents any interruption or downtime of the power during switching (See Weinstein, Col. 1, lines 60-64).

31. Referring to claim 4, Ben-Meir and Weinstein teach all the limitations (See rejection of claim 3) including the system having a power management system, this interpreted as the first and second capacitor networks coupled in a current sharing design to substantially provide redundant power to the first split path reducing the chance that a malfunction in one power supply will introduce errors into signals transmitted along the first split path and compromise the function of the system (See Ben-Meir, Col. 3, lines 29-38).

32. Referring to claim 5, Ben-Meir and Weinstein disclose all the limitations (See rejection of claim 3) including the system having a switch to switch between the first and second power supplies, this is interpreted as a the first and second capacitor networks coupled at a switch that substantially provides redundant power to the first split path, reducing the chance that a malfunction in one power supply will introduce errors into signals transmitted along the first split path and compromise the function of the system (See Weinstein, Col. 1, lines 60-64).

33. Referring to claim 20, Ben-Meir discloses all the limitations (See rejection of claim 1) except for coupling the first and the second power supplies to the first path comprises coupling the first and the second power supplies to a switched power distribution network that is coupled to the first split path, however Ben-Meir does teach having redundant power sources and a desire to prevent any amount of downtime from the failure of a power supply (See Col. 3, lines 15-28). Weinstein teaches the use of capacitors and a switch connected to the power supplies that supply power to a load during a switch from a first to a second power supply (See Col. 1, lines 60-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the switch of Weinstein with the redundant power supplies of Ben-Meir. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because it prevents any interruption or downtime of the power during switching (See Weinstein, Col. 1, lines 60-64).

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are examples of closely related redundant power supply systems.

U.S. Patent 4,607,330 to McMurray et al.

U.S. Patent 5,917,253 to Rusnack

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Manoskey whose telephone number is (571) 272-3648. The examiner can normally be reached on Mon.-Fri. (7:30am to 4pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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December 4, 2004


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